

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Hanson et al.	)	Group Art Unit:	1655
		)		
Serial No.:	Unknown	)	Examiner:	Unknown
	(Parent: 09/407,818)	)		(Parent: F. Lu)
		)		
Filed:	Herewith	)		
	(Parent: 28 September 1999)	)		

For: PRIMERS FOR USE IN DETECTING BETA-LACTAMASES

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
ATTN: BOX PATENT APPLICATION  
Washington, D.C. 20231

Dear Sir:

Prior to taking up the above-identified application for examination, please amend the application as follows:

**In the Specification**

Please insert the following Statement of Related Applications section at page 1 (immediately after the "Title" heading) as instructed in the Request for Filing a Divisional Patent Application filed herewith.

**--Statement of Related Applications**

This application is a divisional of U.S. Patent Application Serial No. 09/407,818, filed September 28, 1999, entitled "Primers for Use in Detecting Beta-Lactamases," which claims the benefit of U.S. Patent Application Serial No. 60/102,181, filed September 28, 1998, entitled "Primers for Use in Detecting Beta-Lactamases," and U.S. Patent Application Serial No. 60/121,765, filed February 26, 1999, also entitled "Primers for Use in Detecting Beta-Lactamases." All three applications are incorporated herein by reference.--

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**In the Claims**

Please cancel claims 3, 6, 12-16, 22, 23, 28, 29, and 39-48, without prejudice. Please amend claims 1, 2, 4, 5, 7-11, 19, 21, 25, 27, 31, 33, 35, 36, 38, 49, 50. The amended claims are provided below in clean form. Per 37 C.F.R. §1.121, the amended claims are also shown in Appendix A with notations to indicate changes made.

1. **(Once Amended)** A primer selected from the group of:

5' - CTT GGT CTG ACA GTT ACC - 3' (SEQ ID NO:3);

5' - TGT CGC CCT TAT TCC - 3' (SEQ ID NO:4);

5' - TCG GGG AAA TGT GCG - 3' (SEQ ID NO:5); and complements thereof.

2. **(Once Amended)** A primer selected from the group of:

5' - ATC GTC CAC CAT CCA CTG CA - 3' (SEQ ID NO:6);

5' - GGG AAA CGG AAC TGA ATG AG - 3' (SEQ ID NO:7);

5' - TAG TGG ATC TTT CGC TCC AG - 3' (SEQ ID NO:8);

5' - GCT CTG CTT TGT TAT TC - 3' (SEQ ID NO:9);

5' - CAC TCA AGG ATG TAT TGT G - 3' (SEQ ID NO:10); and complements thereof.

4. **(Once Amended)** A primer selected from the group of:

5' - CTG GCA ACC ACA ATG GAC TCC G - 3' (SEQ ID NO:18);

5' - GCC AGT TCA GCA TCT CCC AGC C - 3' (SEQ ID NO:19); and complements thereof.

5. **(Once Amended)** A primer selected from the group of:

5' - CGT GAC CAA CAA CGC CCA GC - 3' (SEQ ID NO:20);

5' - CCA GAT AGC GAA TCA GAT CGC - 3' (SEQ ID NO:21); and complements thereof.

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7. **(Once Amended)** A primer selected from the group of:

5' - GGC ATT GGG ATA GTT GCG GTT G - 3' (SEQ ID NO:24);

5' - TTA CTA CAA GGT CGG CGA CAT GAC C - 3' (SEQ ID NO:25); and

complements thereof.

8. **(Once Amended)** A primer selected from the group of:

5' - GGA TCA CAC TAT TAC ATC TCG C - 3' (SEQ ID NO:26);

5' - CGT ATG GTT GAG TTT GAG TGG C - 3' (SEQ ID NO:27); and complements

thereof.

9. **(Once Amended)** A primer selected from the group of:

5' - GCG ACC TGG TTA ACT ACA ATC CC - 3' (SEQ ID NO:28);

5' - CGG TAG TAT TGC CC TTA AGC C - 3' (SEQ ID NO:29); and complements

thereof.

10. **(Once Amended)** A primer selected from the group of:

5' - CGG AAA AGC ACG TCG ATG GG - 3' (SEQ ID NO:30);

5' - GCG ATA TCG TTG GTG GTG CC - 3' (SEQ ID NO:31); and complements thereof.

11. **(Once Amended)** A primer selected from the group of:

5' - CTC GAT GAT GCG TGC TTC GC - 3' (SEQ ID NO:32);

5' - GCG ACT GTG ATG TAT AAA CG - 3' (SEQ ID NO:33); and complements

thereof.

19. **(Once Amended)** The method of claim 18 wherein the primers are selected from the group of:

5' - CTT GGT CTG ACA GTT ACC - 3' (SEQ ID NO:3);

5' - TGT CGC CCT TAT TCC - 3' (SEQ ID NO:4);

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5' - TCG GGG AAA TGT GCG - 3' (SEQ ID NO:5); and complements thereof.

21. **(Once Amended)** The method of claim 20 wherein the primers are selected from the group of:

5' - ATC GTC CAC CAT CCA CTG CA - 3' (SEQ ID NO:6);

5' - GGG AAA CGG AAC TGA ATG AG - 3' (SEQ ID NO:7);

5' - TAG TGG ATC TTT CGC TCC AG - 3' (SEQ ID NO:8);

5' - GCT CTG CTT TGT TAT TC - 3' (SEQ ID NO:9);

5' - CAC TCA AGG ATG TAT TGT G - 3' (SEQ ID NO:10); and complements thereof.

25. **(Once Amended)** The method of claim 24 wherein the primers are selected from the group of:

5' - CTG GCA ACC ACA ATG GAC TCC G - 3' (SEQ ID NO:18);

5' - GCC AGT TCA GCA TCT CCC AGC C - 3' (SEQ ID NO:19); and complements thereof.

27. **(Once Amended)** The method of claim 26 wherein the primers are selected from the group of:

5' - CGT GAC CAA CAA CGC CCA GC - 3' (SEQ ID NO:20);

5' - CCA GAT AGC GAA TCA GAT CGC - 3' (SEQ ID NO:21); and complements thereof.

31. **(Once Amended)** The method of claim 30 wherein the primers are selected from the group of:

5' - GGC ATT GGG ATA GTT GCG GTT G - 3' (SEQ ID NO:24);

5' - TTA CTA CAA GGT CGG CGA CAT GAC C - 3' (SEQ ID NO:25); and complements thereof.

33. **(Once Amended)** The method of claim 32 wherein the primers are selected from the group of:

5' - GGA TCA CAC TAT TAC ATC TCG C - 3' (SEQ ID NO:26);

5' - CGT ATG GTT GAG TTT GAG TGG C - 3' (SEQ ID NO:27); and complements thereof.

35. **(Once Amended)** The method of claim 34 wherein the primers are selected from the group of:

5' - GCG ACC TGG TTA ACT ACA ATC CC - 3' (SEQ ID NO:28);

5' - CGG TAG TAT TGC CC TTA AGC C - 3' (SEQ ID NO:29); and complements thereof.

36. **(Once Amended)** The method of claim 34 wherein the primers are selected from the group of:

5' - CGG AAA AGC ACG TCG ATG GG - 3' (SEQ ID NO:30);

5' - GCG ATA TCG TTG GTG GTG CC - 3' (SEQ ID NO:31); and complements thereof.

38. **(Once Amended)** The method of claim 37 wherein the primers are selected from the group of:

5' - CTC GAT GAT GCG TGC TTC GC - 3' (SEQ ID NO:32);

5' - GCG ACT GTG ATG TAT AAA CG - 3' (SEQ ID NO:33); and complements thereof.

49. **(Once Amended)** A diagnostic kit for detecting a TEM family beta-lactamase which comprises packaging, containing, separately packaged:

(a) at least one primer pair capable of hybridizing to beta-lactamase nucleic acid of interest wherein at least one of the primers is selected from the primers of claim 1;

(b) a positive and negative control; and

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(c) a protocol for identification of the beta-lactamase nucleic acid of interest.

50. **(Once Amended)** The diagnostic kit of claim 49 wherein the primers are selected from the group of:

5' - CTT GGT CTG ACA GTT ACC - 3' (SEQ ID NO:3);

5' - TGT CGC CCT TAT TCC - 3' (SEQ ID NO:4);

5' - TCG GGG AAA TGT GCG - 3' (SEQ ID NO:5); and complements thereof.

### **Remarks**

Claims 3, 6, 12-16, 22, 23, 28, 29, and 39-48 have been canceled, claims 1, 2, 4, 5, 7-11, 19, 21, 25, 27, 31, 33, 35, 36, 38, 49, 50 have been amended, and claims 1, 2, 4, 5, 7-11, 17-21, 24-27, 30-38, and 49-57 are currently pending. Claims 1, 2, 4, 5, 7-11, 19, 21, 25, 27, 31, 33, 35, 36, 38, 49, and 50 have been amended to clarify the invention. The amendments to claims 1, 2, 4, 5, 7-11, 19, 21, 25, 27, 31, 33, 35, 36, 38, 49, and 50 are either specifically supported by the specification and originally filed claims or would be readily understood by one of skill in the art. No new matter has been added and Applicants request entry of the above amendments.

The specification is amended to add a Statement of Related Applications section.

Applicants respectfully request that the Preliminary Amendment described herein be entered into the record prior to examination and consideration of the above-identified divisional application.

If the Examiner wishes to discuss any issues concerning this communication by telephone, please contact the below-signed attorney at (612)305-1217.

If additional fees are deemed necessary in this instance, please charge Deposit Account No. 13-4895.

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**Conclusion**

The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if there are any questions regarding this Preliminary Amendment or if prosecution of this application may be assisted thereby.

Respectfully submitted,  
Hanson et al.,  
By their Representatives,  
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March 21, 2001

Date

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Date of Deposit March 21, 2001

I hereby certify that this paper and/or fee is/are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C F R. 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Attn: Box Patent Application, Washington, D. C. 20231.

Name: JILL R. PRICE